In The Specification:

Please replace the paragraph at Page 2, lines 19-22 and Page 3, lines 1-9 with the following amended paragraph:

Typical ballast circuits include a starting circuit for igniting the lamp and an operating LCR (Inductor-Capacitor-Resistor) circuit for sustaining lamp ignition. In a typical ballast circuit, the same inductor is used to produce the electrical excitation necessary to ignite as well as to operate the lamp. In order to withstand large operating currents for prolonged periods of time, the inductor must be physically large, which increases the size, cost, and weight of the ballast circuit. These large inductors often operate at or near 100 percent of their duty cycle, which in turn results in significant power consumption and heating. Reliability also suffers as the effects of heating ~~increases~~ increase the failure rate of circuit components. In addition, the versatility of the lamp operating circuit suffers since the inductor used in the operating circuit must be within the operating parameters of the particular lamp being operated. Different lamps which operate at different wattages typically require a different or unique inductor to allow for proper operation of the lamp at the correct frequency. Consequently, ballast circuit designers often struggle in their attempt to find the optimal inductor for a particular lighting application.

Please replace the paragraph at Page 9, lines 22-23 and Page 10, lines 1-12 with the following amended paragraph:

In a preferred embodiment, the power factor correction circuit 20 includes a programmable inductor circuit having a plurality of selectable inductance values for varying the amount of power factor adjustment and enhancing the ability of the ballast circuit 10 to ignite and operate different lamps 28. In such an embodiment, the programmable inductor circuit preferably includes a programmable inductor 54 having a primary winding 54' and a ~~second~~ secondary winding 54" which function to adjust the power factor of the incoming power signal and produce a corrected power signal on line 56. Inductor 54 includes a plurality of selectable inductance values for varying the amount of power factor adjustment as needed. For example, a higher inductance value increases the amount of power factor compensation and a lower inductance value decreases the effective power factor compensation. Preferably, each winding 54', 54" of inductor 54 has an associated switch 58, 60. The switches 58, 60 have multiple switch positions which tap the inductor winding at different points so that each switch position results in a different inductance value, and hence, a different amount of power factor adjustment. The positions of switches 58, 60 are controlled by the control circuit 30.

Please replace the paragraph at Page 17, lines 17-23 and Page 18, lines 1-10 with the following amended paragraph:

Inductorless operation of an electronic ballast circuit will now be further discussed with reference to the ignition and sustaining circuit 110 shown in FIG. 4 where conditioned power is provided on line 56 essentially as explained above. Resistors 120-128 function to monitor ~~voltage.~~ voltage on line 56. Resonant inductor 66, capacitor 68, ignition or power switch 67, and resistor 71 form part of an ignition circuit that provides an oscillating voltage signal on line 69 to ignite the lamp 28. Ignition or power switch 67 is preferably a double gated, power MOSFET transistor having a conductive state and a nonconductive state. The DSP 90 is programmed to turn on (i.e., place in a conductive state) switch 67 and switch 72 to establish an oscillating voltage signal on line 69. Thus, the DSP 90 is programmed to place the power switches 67, 72 into predetermined states during ignition (as well as operation) of the lamp 28. Voltage signal 69 is preferably oscillated at high frequency between about 60KHz to about 500KHz and at high voltage of about 1KV or greater. The duty cycle of inductor 66 is very small, so the inductor 66 does not need to be physically large. Typically, ignition of the lamp 28 occurs relatively quickly, and so the inductor 66 can be very small since it only needs to handle peak current (between about 4-15 amps for most lamps) for a short period of time during ignition. Thus, inductor 66 can be designed to handle the peak current during ignition with little or no consideration given to running current parameters since the duty cycle is so low.